

[4910-13-P]

#### DEPARTMENT OF TRANSPORTATION

**Federal Aviation Administration** 

**14 CFR Part 39** 

[Docket No. FAA-2018-0170; Product Identifier 2017-SW-091-AD; Amendment 39-

19239; AD 2018-07-08]

**RIN 2120-AA64** 

Airworthiness Directives; Agusta S.p.A. Helicopters

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Final rule; request for comments.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for Agusta S.p.A. (Agusta) Model A109E, A109K2, A109S, AW109SP, A119, and AW119 MKII helicopters. This AD reduces the life limit of and requires inspecting a tail rotor blade retention bolt (bolt). This AD is prompted by the discovery of a cracked bolt. The actions of this AD are intended to address an unsafe condition on these products.

**DATES:** This AD becomes effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain documents listed in this AD as of [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

We must receive comments on this AD by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments by any of the following methods:

- <u>Federal eRulemaking Docket</u>: Go to http://www.regulations.gov. Follow the online instructions for sending your comments electronically.
  - <u>Fax:</u> 202-493-2251.
- <u>Mail:</u> Send comments to the U.S. Department of Transportation, Docket
   Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey
   Avenue SE, Washington, DC 20590-0001.
- Hand Delivery: Deliver to the "Mail" address between 9 a.m. and 5 p.m.,
   Monday through Friday, except Federal holidays.

# **Examining the AD Docket**

You may examine the AD docket on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2018-0170; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the European Aviation Safety Agency (EASA) AD, any incorporated-by-reference service information, the economic evaluation, any comments received, and other information. The street address for Docket Operations (telephone 800- 647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

For service information identified in this final rule, contact Leonardo S.p.A. Helicopters, Matteo Ragazzi, Head of Airworthiness, Viale G.Agusta 520, 21017 C.Costa di Samarate (Va) Italy; telephone +39-0331-711756; fax +39-0331-229046; or at http://www.leonardocompany.com/-/bulletins. You may review the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101

Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177. It is also available on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2018-0170. **FOR FURTHER INFORMATION CONTACT:** Matt Fuller, Senior Aviation Safety Engineer, Safety Management Section, Rotorcraft Standards Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5110; email matthew.fuller@faa.gov.

#### **SUPPLEMENTARY INFORMATION:**

#### **Comments Invited**

This AD is a final rule that involves requirements affecting flight safety, and we did not provide you with notice and an opportunity to provide your comments prior to it becoming effective. However, we invite you to participate in this rulemaking by submitting written comments, data, or views. We also invite comments relating to the economic, environmental, energy, or federalism impacts that resulted from adopting this AD. The most helpful comments reference a specific portion of the AD, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should send only one copy of written comments, or if comments are filed electronically, commenters should submit them only one time. We will file in the docket all comments that we receive, as well as a report summarizing each substantive public contact with FAA personnel concerning this rulemaking during the comment period. We will consider all the comments we receive and may conduct additional rulemaking based on those comments.

### **Discussion**

EASA, which is the Technical Agent for the Member States of the European

Union, has issued Emergency AD No. 2016-0173-E, dated August 24, 2016, to correct an unsafe condition for Leonardo S.p.A. (formerly Agusta) Model A109E, A109K2, A109LUH, A109S, A119, AW109SP, and AW119MKII helicopters. EASA advises of a crack found in a bolt, part number (P/N) 709-0160-57-101, during a pre-flight inspection of a Model A109E helicopter. This part-numbered bolt is also installed on Model A109K2, A109LUH, A109S, A119, AW109SP, and AW119MKII helicopters.

Subsequent investigation did not identify the cause of the crack. EASA advises that this condition, if not detected and corrected, could lead to failure of the tail rotor, possibly resulting in loss of control of the helicopter. As a precautionary measure pending the completion of the investigation and to address the unsafe condition, the EASA AD requires reducing the life limit of and repetitively inspecting the bolts. The EASA AD is considered an interim action and further AD action may follow.

Accordingly, this AD requires reducing the life limit of bolt P/N 709-0160-57-101 to 800 hours time-in-service (TIS) or 3,200 landings, depending on the model helicopter on which the bolt is installed. This AD also requires, within 25 hours TIS, inspecting each bolt for a crack using a 10X or higher power magnifying glass, both before and after cleaning and degreasing the bolts. Additional inspections of the bolts at longer intervals may also be necessary. We plan to publish a notice of proposed rulemaking to give the public an opportunity to comment on those long-term requirements.

The FAA is in the process of updating Agusta's name change to Leonardo

Helicopters on its FAA type certificate. Because this name change is not yet effective,
this AD specifies Agusta.

#### **FAA's Determination**

These helicopters have been approved by the aviation authority of Italy and are approved for operation in the United States. Pursuant to our bilateral agreement with Italy, EASA, its technical representative, has notified us of the unsafe condition described in the EASA AD. We are issuing this AD because we evaluated all information provided by EASA and determined the unsafe condition exists and is likely to exist or develop on other helicopters of these same type designs.

### Related Service Information Under 1 CFR part 51

Leonardo Helicopters has issued Mandatory Bollettino Tecnico (BT)

No. 109EP-149 for Model A109E helicopters, Mandatory BT No. 109K-72 for Model

A109K2 helicopters, Mandatory BT No. 109S-072 for Model A109S helicopters,

Mandatory BT No. 109SP-105 for Model AW109SP helicopters, and Mandatory BT No.

119-080 for Model A119 and AW119 MKII helicopters, all dated August 19, 2016. This service information specifies reducing the life limit of bolt P/N 709-0160-57-101 and repetitively inspecting the bolts for cracks.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

#### **AD Requirements**

This AD requires, before further flight, removing from service any bolt P/N 709-0160-57-101 that has reached or exceeded its new life limit. Thereafter, this AD requires removing from service any bolt P/N 709-0160-57-101 before it reaches its new life limit.

This AD also requires, within 25 hours time-in-service, inspecting each bolt for a crack using a 10X or higher power magnifying glass, both before and after cleaning and degreasing the bolts, and replacing a cracked bolt before further flight.

#### Differences between this AD and the EASA AD

The EASA AD applies to Model A109LUH helicopters. This AD does not because the Model A109LUH does not have an FAA type certificate. The EASA AD does not specify life limits for bolt P/N 709-0160-57-101 that has been interchanged between model helicopter installations, while this AD does. The EASA AD requires repeating the visual inspection every 200 hours, while this AD does not, as this time interval would allow for sufficient time for notice and comment.

#### **Interim Action**

We consider this AD to be an interim action. The design approval holder is currently developing a modification that will address the unsafe condition identified in this AD. Once this modification is developed, approved, and available, we might consider additional rulemaking.

# **Costs of Compliance**

We estimate that this AD affects 234 helicopters of U.S. Registry. We estimate that operators may incur the following costs in order to comply with this AD. Labor costs are estimated at \$85 per work-hour.

Removing a bolt that has reached its new life limit will take about 2 work-hours for a cost of \$170 per bolt. Inspecting the bolts will take about 4 work-hours for an estimated cost of \$340 per helicopter and \$79,560 for the U.S. fleet. Replacing a bolt will take negligible additional labor time and parts will cost about \$500.

According to Leonardo Helicopter's service information, some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage by Leonardo Helicopter. Accordingly, we have included all costs in our cost estimate.

#### FAA's Justification and Determination of the Effective Date

An unsafe condition exists that requires the immediate adoption of this AD without providing an opportunity for public comments prior to adoption. The FAA has found that the risk to the flying public justifies waiving notice and comment prior to adoption of this rule because some of the required corrective actions must be completed before further flight. Therefore, we find good cause that notice and opportunity for prior public comment are impracticable.

In addition, for the reasons stated above, we find that good cause exists for making this amendment effective in less than 30 days.

### Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority

because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

# **Regulatory Findings**

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed, I certify that this AD:

- 1. Is not a "significant regulatory action" under Executive Order 12866;
- Is not a "significant rule" under DOT Regulatory Policies and Procedures
   (44 FR 11034, February 26, 1979);
- 3. Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and
- 4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared an economic evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

# List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

# **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

#### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

# § 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2018-07-08 **Agusta S.p.A.:** Amendment 39-19239; Docket No. FAA-2018-0170; Product Identifier 2017-SW-091-AD.

# (a) Applicability

This AD applies to Model A109E, A109K2, A109S, AW109SP, A119, and AW119 MKII helicopters, certificated in any category, with a tail rotor blade retention bolt (bolt) part number (P/N) 709-0160-57-101 installed.

# (b) Unsafe Condition

This AD defines the unsafe condition as a crack in a bolt. This condition could result in failure of the tail rotor and loss of control of the helicopter.

#### (c) Effective Date

This AD becomes effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

# (d) Compliance

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

# (e) Required Actions

(1) Before further flight:

- (i) For Model A109E and A109K2 helicopters, remove from service any bolt P/N 709-0160-57-101 that has 800 or more hours time-in-service (TIS). If the hours TIS is unknown, remove the bolt from service. Thereafter, remove from service any bolt P/N 709-0160-57-101 before accumulating 800 hours TIS.
- (ii) For Model A109S, AW109SP, A119, and AW119 MKII helicopters, remove from service any bolt P/N 709-0160-57-101 that has 3,200 or more landings. If the number of landings is unknown, remove the bolt from service. Thereafter, remove from service any bolt P/N 709-0160-57-101 before accumulating 3,200 landings. For purposes of this AD, a landing is counted anytime a helicopter lifts off into the air and then lands again regardless of the duration of the landing and regardless of whether the engine is shutdown.
- (iii) Remove from service any bolt P/N 709-0160-57-101 that has been interchanged between different model helicopters listed in paragraphs (e)(1)(i) and (e)(1)(ii) of this AD that has 800 or more hours TIS or 3,200 or more landings. If the hours TIS or number of landings is unknown, remove the bolt from service. Thereafter, remove from service any bolt P/N 709-0160-57-101 that has been interchanged between different model helicopters listed in paragraphs (e)(1)(i) and (e)(1)(ii) of this AD before accumulating 800 hours TIS or 3,200 landings, whichever occurs first.
- (2) Within 25 hours TIS, remove each bolt P/N 709-0160-57-101. Prior to cleaning, using a 10X or higher power magnifying glass, visually inspect the bolt for a crack in the area depicted in Figure 1 of Leonardo Helicopters Mandatory Bollettino Tecnico Nos. 109EP-149, 109K-72, 109S-072, 109SP-105, or 119-080, all dated August 19, 2016 (BT Nos. 109EP-149, 109K-72, 109S-072, 109SP-105, or 119-080), as

applicable to your model helicopter.

- (i) If there is a crack, replace the bolt before further flight.
- (ii) If there are no cracks, clean and degrease the inspection area of the bolt with solvent, and using a 10X or higher power magnifying glass, visually inspect the bolt for a crack in the area depicted in Figure 1 of BT Nos. 109EP-149, 109K-72, 109S-072, 109SP-105, or 119-080, as applicable to your model helicopter. If there is a crack, replace the bolt before further flight.

# (f) Alternative Methods of Compliance (AMOCs)

- (1) The Manager, Safety Management Section, Rotorcraft Standards Branch, FAA, may approve AMOCs for this AD. Send your proposal to: Matt Fuller, Senior Aviation Safety Engineer, Safety Management Section, Rotorcraft Standards Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5110; email 9-ASW-FTW-AMOC-Requests@faa.gov.
- (2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office, before operating any aircraft complying with this AD through an AMOC.

# (g) Additional Information

The subject of this AD is addressed in European Aviation Safety Agency (EASA) Emergency AD No. 2016-0173-E, dated August 24, 2016. You may view the EASA AD on the Internet at http://www.regulations.gov by searching for and locating it in Docket No. FAA-2018-0170.

### (h) Subject

Joint Aircraft Service Component (JASC) Code: 6500, Tail Rotor Drive System.

# (i) Material Incorporated by Reference

- (1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.
- (2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.
- (i) Leonardo Helicopters Mandatory Bollettino Tecnico No. 109EP-149, dated August 19, 2016.
- (ii) Leonardo Helicopters Mandatory Bollettino Tecnico No. 109K-72, datedAugust 19, 2016.
- (iii) Leonardo Helicopters Mandatory Bollettino Tecnico No. 109S-072, dated August 19, 2016.
- (iv) Leonardo Helicopters Mandatory Bollettino Tecnico No. 109SP-105, dated August 19, 2016.
- (v) Leonardo Helicopters Mandatory Bollettino Tecnico No. 119-080, datedAugust 19, 2016.

(3) For Leonardo Helicopters service information identified in this AD, contact Leonardo S.p.A. Helicopters, Matteo Ragazzi, Head of Airworthiness, Viale G.Agusta 520, 21017 C.Costa di Samarate (Va) Italy; telephone +39-0331-711756; fax +39-0331-229046; or at http://www.leonardocompany.com/-/bulletins.

(4) You may view this service information at FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to:

http://www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued in Fort Worth, Texas, on April 3, 2018.

Scott A. Horn,

Deputy Director for Regulatory Operations,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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